

SOME NEW RECORDS OF FISH IN NEW ZEALAND WATERS

A. B. STEPHENSON
AUCKLAND INSTITUTE AND MUSEUM

Abstract. Seven fish species are recorded for the first time in New Zealand coastal waters.

Underwater diving techniques are fulfilling an increasingly important role in marine studies below the inter-tidal zone. Whereas we were once limited to the probing of grabs, nets and lines in exploration, collecting and recording, this new personalized sampling has produced a means through which we can rapidly challenge our previous knowledge of species occurrence and distribution.

The following new fish records have been obtained during underwater collections from the Poor Knight Islands and the north-eastern coastal waters of the North Island. Specimens are held in this Museum.

Family EPINEPHELIDAE

Aulacocephalus temmincki Bleeker

Aulacocephalus temmincki Bleeker, 1853, *Verh. Bat. Gen.* 25 : 10

D. IX 12, A. III 9, Ll. 73

Material examined. Poor Knights Islands: Northern Arch, speared at 130 ft. (39.62 m), (1), 4.V.1968, R. Bruce.

While recording its presence in the fauna of the Kermadec Islands, Waite (1911, p. 29) noted that "the locality represents its most southerly known range". In a later publication, Smith (1950, p. 190) wrote of its distribution as far south as Durban, which is approximately the same latitude as the Kermadec Group (30° S.). This record now extends the known southerly distribution of the species to latitude 35° 30' S.

The inclusion of this species in a Checklist of New Zealand Fishes, by Whitley (1968b, p. 54) is based only on evidence of a news item (Doak & Tarlton 1968, p. 7).

Identification. From description of Boulenger (1895, p. 158) and in Smith (1950, pl. 16, fig. 419).

Previous localities. Widespread throughout central Indo-Pacific waters.

Acanthistius cinctus (Gunther)

Plectropoma cinctum Gunther, 1859, *Cat. Fish Brit. Mus.* 1 : 162

D. XIII 15, A. III 8, Ll. 60

Material examined. Poor Knights Islands: Northern Arch, speared at 150 ft. (45.72 m) (1), 19.I.1969, A. Ayling. Matauri Bay, Northland, at 40 ft. (12.19 m) (1), 6.IV.1969, J. Thornbury.

Identification. From description of Gunther (1859, pl. 162) and figure of type by Boulenger (1895, pl. 1).

Colouration. Overall body colour of live specimen is a pale yellow-brown rather than reddish-brown described by Gunther (1859, pl. 162) and divers commonly refer to this fish as a yellow banded perch. Overlying dark cross bands and stripes agree with the description.

Previous localities. Norfolk Island (type loc.), Lord Howe and Kermadec Islands.

Trachypoma macracanthus Gunther

Trachypoma macracanthus Gunther, 1859, *Cat. Fish Brit. Mus.* 1 : 167

D. XII 13, A. III 6, Ll. 50.

Attention to this fish was first drawn by an unidentified photograph (Doak 1969, p. 11).

Material examined. Poor Knights Islands: Hope Point (1), 23.III.1969, A. Ayling.

Identification. From description and drawing of Boulenger (1895, p. 146, pl. 2).

Colouration. In a fresh specimen the body has a crimson hue, which is noticeably paler along the belly. Spots have a pale blue centre with a dark brown circlet. The crimson colouration is replaced by brown tonings (cf. Boulenger 1895, p. 146) after preservation in alcohol.

Previous localities. From Norfolk Island (type loc.), Lord Howe and Kermadec Islands.

Family LABRIDAE

Pseudolabrus inscriptus (Richardson)

Labrus inscriptus Richardson, 1848, *Zool. Voy. Erebus and Terror Fish.* p. 134, pl. 56, fig. 1-2.

D. IX 14, A. III, 10.

Material examined. Poor Knights Islands: speared amongst seaweed at 30 ft. and 40 ft., 27.IV.1968 (9.14 m) (1), K. Tarlton (12.19 m) (1), D. Quinlan. Divers have since reported that this fish is of frequent occurrence and specimens have been collected as far south as the Whangaparaoa Peninsula, Hauraki Gulf (10.III.1969, B. J. Dunn).

Identification. From description and drawing of Richardson (1848, p. 134, pl. 56, figs. 1-2).

Previous localities. Norfolk Island (type loc.), Lord Howe and Kermadec Islands.

Pseudolabrus luculentus (Richardson)

Labrus luculentus Richardson, 1848, *Zool. Voy. Erebus and Terror, Fish.* p. 130.

D. IX II, A. III 10, Ll. 25.

Material examined. Poor Knights Islands: Southern cave (1), 25.III.1969, A. Ayling; Northern Arch, speared at 20 ft. (6.09 m) (1), 11.V.1969, B. Russell.

Identification. From notes and drawing of Waite (1903, p. 29, pl. V, fig. 1).

Previous localities. Norfolk Island (type loc.), Lord Howe and Kermadec Islands, Eastern and Western Australia.

Coris picta (Bloch and Schneider)

Labrus pictus Bloch and Schneider, 1801, *Systema Ichthyologiae.* p. 251, pl. 55.

D. IX 12, A. III 12, Ll. 83.

Material examined. Southern cave, speared at 40 ft. (12.19 m) (1), 25.II.1969, A. Ayling. Specimens have been examined from waters as far south as Hahei, Coromandel (8.III.1969, A. Ayling).

The darkly coloured comb-shaped bands on the sides of these fishes, which Whitley (1931, p. 323) regarded as "sufficient to distinguish this species generically from all other species allied to *Coris* Lacépède known to the writer", seem to be variable on New Zealand specimens to the extent that Whitley's genus *Ctenocorissa* warrants further investigation.

Identification. From drawing and description of Waite (1903, p. 26-27, pl. 5, fig. 1).

Previous localities. South Queensland, New South Wales, Lord Howe Island.

Family CANTHIGASTERIDAE

Canthigaster callisternus (Ogilby)

Tetrodon callisternus Ogilby, 1889, *Mem. Aust. Mus.* 2 : 74, pl. 3, fig. 5

D. I 10, A. I 9.

Material examined. Poor Knights Islands: Hope Pt., speared at 60 ft. (18.28 m) (2), 23.III.1969, A. Ayling.

Previous reports of this species occurring in the same locality, listed by Whitley (1968a, p. 40), are based on news items.

Identification. From description and drawing of Ogilby (1889, p. 74, pl. 3, fig. 5).

Previous localities. Lord Howe Island (type loc.), Kermadec Islands and Queensland.

DISCUSSION

Tropical Indo-Pacific elements of northern coastal faunas have been recognised for some time and these new records are of species of similar origin. Because of the previous lack of collecting by diving, it would be difficult to determine whether these fishes are recent arrivals or have remained undiscovered because of previous inadequacies of the sampling technique. In the case of two species, *Aulacocephalus temmincki* and *Trachypoma macracanthus*, there are grounds for suggesting their recent arrival because the frequency of underwater sightings of these fish, at this stage, is extremely low. Nevertheless, the certainty of such a suggestion lies in the continued involvement with underwater divers in observations and recording.

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